# GI Part 4. Portable Ladders Detailed Comparison With 29 C.F.R. Subpart D – Walking-Working Surfaces: 1910.25 Portable wood ladders 1910.26 Portable metal ladders

The comparisons show only those provisions where MIOSHA rules are different than OSHA or where MIOSHA rules are not included in 29 C.F.R.

## MIOSHA

# R 408.10413. Brand on wood ladder; mark or tag on nonwood ladder.

Rule 413. (1) A wood ladder purchased for use in, around, or about a place of employment shall bear a brand to show the manufacturer's name. or an appropriate abbreviation thereof, or private label, the last 2 numbers of the year manufactured, ladder grade, and certification of compliance with the United States American Standards, standard A14.1- 1975, Portable Wood Ladders, which is incorporated herein by reference. This standard is available for inspection at the Lansing office of the department of consumer and industry services, and may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909, at a cost of \$5.00 each. The required information may be stamped into a guide iron on an extension ladder or the metal support of a step ladder cap. Each section of an extension or trestle ladder shall bear the required information.

- (2) A nonwood ladder purchased for use in, around, or about a place of employment shall bear a permanent mark or a permanently attached tag, giving the manufacturer's name or private label and the last 2 numbers of the year manufactured, ladder grade and certification of compliance with the American Standard Association standard, A14.2- 1972, Portable Metal Ladders, which is incorporated herein by reference. This standard is available for inspection at the Lansing office of the department of consumer and industry services and may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909 at a cost of \$4.25 each. (3) A portable rung ladder provided and used by a life support organization, such as a fire or police department, is not subject to rules 413(1) and (2), 427, 441(1), 445(4), (5) and (7) and 447(3), if the ladder specifications exceed the requirements of USAS-A14.1-1968 or ASAS-A14.2-1956.
- (4) A ladder purchased prior to January 15, 1972, may be used without the marking required in subrules (1) and (2), but shall conform to ANSI A14.1-1975 or A14.2-1972.

# R 408.10421. Portable wood ladders, metal and wood parts.

Rule 421. (1) The strength of metal parts and fittings of a portable wood ladder shall not be less than the design

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requirements of the ladder to which they are affixed.
(2) Wood parts shall meet the United States American Standards, standard A.14.1-1975 when repairs are made. This standard is available as noted in rule 413(1).

#### R 408.10422. Portable wood step ladders.

**Rule 422.** A step ladder shall be only of a type as follows:

(a) Type I — which shall be an industrial step ladder, 3 to 20 feet in length and manufactured for heavy duty, such as used by utilities, contractors and industries.
(b) Type II — commercial step ladder, 3 to 10 feet for medium duty, such as used by painters, offices and light industries.

#### R 408.10427. Portable rung ladder lengths.

**Rule 427.** (1) A portable rung ladder which is of a greater length than given in table 1 shall not be used.

(2) Table 1 reads as follows:

# TABLE 1 PORTABLE RUNG LADDER LENGTHS

Type of Ladder	Maximum Length
Single ladder	22 feet
Two-section extension ladder	40 feet
Three-section extension ladder	60 feet
Assembled section ladder	21 feet
Trestle ladder or extension sections or	base
sections of an extension trestle ladder	18 feet

# R 408.10428. Portable rung extension ladders. Rule 428.

(2) The minimum overlap of adjacent sections of a 2 or 3 section portable rung extension ladder shall be as follows:

(3) A portable rung extension ladder shall have positive means which ensure the overlap as specified in subrule (2) of this rule.

#### 1910.25 Portable wood ladders.

(b) Materials

(2) Portable stepladders. Stepladders longer than 20 feet shall not be supplied. Stepladders as hereinafter specified shall be of three types:

Type I - Industrial stepladder, 3 to 20 feet for heavy duty, such as utilities, contractors, and industrial use. Type II - Commercial stepladder, 3 to 12 feet for medium duty, such as painters, offices, and light industrial use.

1910.25(c)(3) "Portable rung ladders."

1910.25(c)(3)(ii) "Single ladder."

1910.25(c)(3)(ii)(a) Single ladders longer than 30 feet shall not be supplied.

1910.25(c)(3)(iii) "Two-section ladder."

1910.25(c)(3)(iii)(a) Two-section extension ladders longer than 60 feet shall not be supplied. All ladders of this type shall consist of two sections, one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised and lowered.

1910.25(c)(3)(iv) "Sectional ladder."

1910.25(c)(3)(iv)(a) Assembled combinations of sectional ladders longer than lengths specified in this subdivision shall not be used.

1910.25(c)(3)(v) "Trestle and extension trestle ladder." 1910.25(c)(3)(v)(a) Trestle ladders, or extension sections or base sections of extension trestle ladders longer than 20 feet shall not be supplied.

1910.25(c)(4) "Special-purpose ladders."

1910.25(c)(4)(ii) "Painter's stepladder."

1910.25(c)(4)(ii)(a) Painter's stepladders longer than 12 feet shall not be supplied.

1910.25(c)(4)(iii) "Mason's ladder." A mason's ladder is a special type of single ladder intended for use in heavy construction work.

1910.25(c)(4)(iii)(a) Mason's ladders longer than 40 feet shall not be supplied.

1910.25(c)(5) "Trolley and side-rolling ladders" - 1910.25(c)(5)(i) "Length." Trolley ladders and side-rolling ladders longer than 20 feet should not be supplied.

#### 1910.25 Portable wood ladders.

1910.25(d)(2)(xiii)

On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:

Size of ladder (feet)	Overlap
	(feet)
Up to and including 36	3
Over 36 up to and including 48	4
Over 48 up to and including 60	5

## R 408.10431. Special-purpose ladders.

**Rule 431.** (1) A special-purpose ladder may be capable of being used as, but not limited to, a step ladder, a single or extension ladder, or a trestle ladder.

- (2) A special-purpose ladder, when used as any of the type of ladder listed in subrule (1) of this rule, shall meet the requirements of the applicable rules of this part.
- (3) A special-purpose ladder may be used by more than one employee if specifically designed for that purpose.
- (4) A platform step ladder shall be constructed in accordance with the requirements for a type I step ladder or a type II step ladder. A platform of a platform ladder shall be capable of supporting a load of 200 pounds placed at any point on the platform.
- (5) A type II step ladder which is used for painting may have its top omitted.

#### R 408.10432. Cleat ladders.

Rule 432. (1) A cleat ladder which is longer than 22 feet shall not be used.

- (2) Wood in a cleat ladder shall be straight grained and knot free.
- (3) Wood side rails of a cleat ladder shall be not less than 2 by 4 inches nominal. Wood cleats of a cleat ladder may be not less than 1 by 4 inches nominal.
- (4) The distance between the side rails of a cleat ladder shall be at least 14  $\frac{1}{2}$  inches, but not more than 16  $\frac{1}{2}$  inches.
- (5) Wooden cleats shall be inset into the 2 side rails of a cleat ladder not less that ½ inch or attached directly to the edge of the side rails if filler blocks the thickness of the cleats are securely attached to the edge of the rail for the entire length between the cleats. The cleats shall be fastened to each rail by at least 3 size 10-d wire nails.

# R 408.10441. Handling and transporting ladders.

**Rule 441.** (1) A ladder shall be handled with reasonable care and not subjected to deliberate dropping or to misuse. A ladder shall not be used as a plank or skid.

(2) A ladder which is carried on a vehicle shall be secured to prevent it from catapulting or falling from the vehicle.

# R 408.10443. Inspection and repair or replacement.

**Rule 443.** (1) A ladder shall be inspected before its use and after it has fallen or been involved in an accident to determine its condition. A ladder shall be repaired or replaced if it shows:

(a) Splits in it side rails through to opposite surfaces in excess of 3 inches at the rungs or 6 inches along the rails. Splits singly or in combination along the same grain line shall not exceed 6 inches in any 1 foot. Splits through to the opposite broad faces exceeding 6 inches but not more than 1 ½ feet in length in single or combined lengths may be closed with a 3/16 inch diameter wagon box-head rivet centrally located in the narrow face of the rail. Where the split runs through rung holes, the rivets shall be placed approximately 2 inches from the center of each rung so effected.

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- This subdivision does not refer to checks in a ladder.
- (b) Gouges, dents or other damage that may be dressed smooth if the rail is not reduced by more than 10% of the thickness or depth. Damage to corner edges, including splits, may be dressed to a smooth bevel, if the cross section is not reduced by more than 10% of its original area.
- (c) Worn, crushed, cracked, split, splintered or missing rungs, steps, tops or platforms.
- (d) Longitudinal play of ¾ inch in the rails due to looseness of rungs or steps.
- (e) Broken or bent guide irons, spreaders or locks.

#### R 408.10445. Use of ladders.

Rule 445. (1) A ladder shall not be placed in front of a door which opens toward the ladder unless the door is blocked open, locked, guarded by a person or protected by a barricade

- (5) A person on a single or sectional ladder shall not over-reach, nor do any pushing or pulling that may cause the ladder to move or topple. If both shoulders are outside the side rail, the user is over-reaching.
- (6) The user shall not stand astride a ladder and another object.
- (7) A single or sectional ladder manufactured pursuant to these rules shall not be used by more than 1 person at a time.

## R 408.10446. Use of step ladders.

**Rule 446.** (1) A step ladder which is being used shall be opened fully and its spreaders locked.

- (2) Each leg of a step ladder shall be in contact with solid footing. A board or plank may be used to secure footing on uneven ground.
- (3) If a step ladder does not have a guard rail, the top step and cap shall not be used to work from or to climb on.
- (4) A folded step ladder shall not be used as a straight ladder by leaning it against a wall or other support.
- (5) When carrying objects up ladders, 1 hand should be kept free to maintain balance and security.
- (6) The bracing on the back legs of a step ladder shall not be used for climbing, except as provided in R 408.10431 of this part.

# R 408.10447. Use of straight, sectional, and extension ladders.

Rule 447. (1) A straight, sectional or extension ladder shall be placed so that the side rails have a secure footing. Where the surface is uneven, boards, planks, or leveling jacks may be used to create an even surface. A straight, sectional, or extension ladder shall have safety feet. The ladder shall be placed so as to prevent slipping or it shall be lashed or held in position.

- (2) A portable non-self-supporting ladder should be erected at a pitch of 75 ½ degrees for maximum balance and strength. This may be accomplished by placing the base out from the wall or other support ¼ of the working length of the ladder.
- (4) A person using a straight or extension ladder shall not stand on the top 2 rungs or within 3 feet from the top of the ladder.

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- (5) If the top of the ladder is secured to an object, the user may secure himself to the ladder by placing 1 leg over the second rung above the rung on which he is standing.
- (6) When using a ladder to go from 1 landing to another, the ladder shall extend above the upper landing by not less than 3 feet.
- (7) The top rest for a straight or extension ladder shall be reasonably rigid and shall have ample strength to support the applied load.

#### **NON-WOOD LADDERS**

# R 408.10452. Specifications. Rule 452.

- (2) To be classified as a standard length ladder, the measured length shall be within plus or minus ½ inch of the specified length. A non-wood step ladder which exceeds 16 feet in length shall not be used. The bottom of each rail of a non-wood step ladder shall have nonslip material.
- (4) The length of a non-wood platform ladder shall not exceed 16 feet.
- (5) A non-wood platform ladder shall comply with rule

# 1910.26 Portable metal ladders.

- (a) Requirements
- (3) General specifications step ladders.
- (iii) The length of a stepladder is measured by the length of the front rail. To be classified as a standard length ladder, the measured length shall be within plus or minus one-half inch of the specified length. Stepladders shall not exceed 20 feet in length.

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